

# WHO Programme to Eliminate Sleeping Sickness

## *Building a Global Alliance*



World Health Organization



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# WHO Programme to Eliminate Sleeping Sickness

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# preface

*The signing on 3 May 2001 of a partnership agreement between WHO and Aventis\*, and the call by the Director-General of WHO to reinforce control measures against sleeping sickness, have heralded the dawn of a new era in the struggle to eliminate this scourge of Africa. Private partners, NGOs and institutional partners such as the governments of Belgium and France are already mobilized together with relevant UN organizations (FAO, IAEA, WHO), and it is hoped that new partners will join soon. It is also of great significance that the Organization of African Unity, at its meeting of Heads of State held in Lomé (Togo) in June 2000, created the Pan African Tsetse and Trypanosomiasis Eradication Campaign (PATTEC) and declared 2001 as the year of eradication of the tsetse fly.*

*In order to implement this ambitious programme and spare no efforts to safeguard the welfare of the population of Africa, WHO is mobilizing all its forces and streamlining its activities in this area. The key to success is to make the best possible use of all capacity within the Organization.*

*The WHO Regional Office for Africa and WHO headquarters have joined together to create an office in Yaoundé (Cameroon) to support surveillance and control of sleeping sickness, in order to enhance activities as close as possible to the field, and more especially in the countries most severely affected.*

*An action plan is currently being drawn up by the Regional Office and headquarters, in order to establish a programme which will be implemented in complete collaboration. Absolute priority is being given to case detection and patient treatment, in order to relieve the suffering of rural populations. The vast majority of available and future resources will thus be directly used in countries.*

*I am convinced that the establishment of a private-public partnership, effectively*

*implemented thanks to exemplary collaboration between all actors in WHO and in the field, will enable us to demonstrate to the world that a disease which was hitherto "neglected" can be vanquished at last.*



**Dr Ebrahim Samba,**  
Regional Director, WHO Regional Office for Africa



Photo credit: Patrick Robert, Sygma/Corbis

# ***WHO Programme to Eliminate Sleeping Sickness***

## ***Preamble***

*The Pan African Tsetse and Trypanosomiasis Eradication Campaign (PATTEC) was established in June 2000 by the Heads of State of the Organization of African Unity (OAU) and launched on 5 October 2001, calling for the mobilization of the international community and African countries to combat sleeping sickness;*

*In a statement on 3 May 2001, the Director-General of the World Health Organization (WHO) declared: "We can now look forward to halting the spread of sleeping sickness... As we increase surveillance, treatment and research, there is now reason to hope that we can better control this disease. We hope that others inspired by our work will join us as much remains to be done";*

*National authorities have expressed their willingness to coordinate action;*

*WHO has decided to merge all its efforts to combat the disease;*

*A public-private partnership has been established to support WHO efforts against human African trypanosomiasis (HAT);*

*Inter-agency collaboration in this field has been implemented since 1995 through the joint Programme Against African Trypanosomiasis (PAAT) supported by WHO, the Food and Agriculture Organization of the United Nations (FAO), the International Atomic Energy Agency (IAEA) and the OAU;*

*The involvement of nongovernmental organizations in related programmes has increased;*

*As a concrete expression of the international commitment noted above and recent successes achieved*

***WHO now proposes to launch a  
Programme to Eliminate Sleeping Sickness.***

*Human African trypanosomiasis, or sleeping sickness, is one of the world's most neglected diseases, affecting poor populations in remote rural areas of Africa. It is also one of the most pernicious infectious diseases to have re-emerged in recent years. Brought close to elimination in the 1960s, the disease resurged dramatically as health systems deteriorated and control programmes were either abandoned or weakened by political instability and war. Today some 60 million people are at risk.*

# Overview

*The disease is difficult to prevent and treat. Detection of infection and subsequent patient care require well-trained staff, sophisticated technical resources, a reliable supply of drugs, and well-equipped health centres – all extremely rare in the most affected areas. Without treatment, infected people invariably die. Prevention has been greatly hampered by the collapse of programmes for vector control. Research to find better control tools is yet another area of neglect.*







Photo credit: PNT Benin / JP Zellweger

*Today, this bleak outlook is poised to change. After 40 years of neglect, sleeping sickness is now the focus of a new World Health Organization programme established*

*to steer, implement and coordinate a renewed attack on this little-known yet dreaded disease. A global alliance of partners, led by WHO, is providing the momentum, commitment and means not only to bring the disease under control, but eventually to eliminate it.*

## ***The scourge of Africa – once again***

Elimination is feasible. Systematic and thorough prevention and control activities brought sleeping sickness close to elimination in the 1960s. In the ensuing years, however, control activities deteriorated and the disease steadily rose in prevalence, becoming – once again – the scourge of Africa. WHO estimates that some 300 000 to 500 000 people are now affected, while up to 60 million people in 36 countries are at risk of contracting the disease. Sleeping sickness now ranks 7<sup>th</sup> in sub-Saharan Africa in terms of disability adjusted life years, and is second only to malaria in the global ranking of parasitic diseases.

As the disease occurs in the poorest areas of some of the world's least developed countries, the establishment and implementation of effective control programmes face major obstacles. Historically, poor rural populations attract less attention from decision-makers than residents in densely populated urban areas. The concentration of disease in populations with poor or no access to health services substantially complicates procedures for case detection, treatment and patient follow-up.

## ***A difficult – and costly – disease***

Sleeping sickness is a parasitic infection caused by two species of *Trypanosoma* (*T. rhodesiense* and *T. gambiense*) transmitted by the tsetse fly. The disease ultimately affects the central nervous system causing severe



neurological disorders. If left untreated, death is inevitable. Diagnosis and subsequent patient care require well-trained staff, sophisticated technical resources, drugs and well-equipped health centres. The number of health staff in the affected areas trained in the control of the disease is low. Their work is further complicated by the lack of support from local health infrastructures which are either weak or non-existent. As a result, it is estimated that only 10% of those suffering from the disease receive proper treatment.

Apart from the burden of human suffering, livestock are also affected by sleeping sickness, resulting in an estimated annual economic loss of US\$ 4.5 billion. Tsetse flies and the infections they transmit are considered one of the greatest impediments to Africa's socioeconomic development, severely affecting health, limiting land use, causing poverty and perpetuating underdevelopment. Tools exist to combat the disease through vector control, yet are greatly underused.

Sleeping sickness suffers from neglect in another area as well: the dearth of research institutes committed to developing new treatments. Few research initiatives have been devoted to the search for safe new drugs to combat sleeping sickness, due in large part to the lack of qualified researchers.

## ***The need for a holistic approach: WHO's objectives***

Difficult diseases such as African trypanosomiasis require a holistic and comprehensive approach both to understand the disease and to combat it – a strategy that incorporates all areas from surveillance and diagnosis to treatment and research. WHO and its partners have been engaged for many years in considerable efforts to raise awareness of the disease and to strengthen surveillance, control and research capacities in endemic countries.



***In 1997, WHO established five objectives for strengthening country capacity and decreasing disease prevalence:***

- ***Coordination and strengthening of control activities in countries***
- ***Enhancement of the epidemiological surveillance system***
- ***Development of a sleeping sickness treatment and drug resistance network***
- ***Inter-agency collaboration***
- ***Training, information management and dissemination***

***While some progress has been made towards reaching these objectives, the disease burden continues to increase.***

## *The right time for a major international initiative*

The new WHO sleeping sickness elimination programme responds to two recent developments, the first and most significant being the refusal, on the part of the international community as well as WHO, to continue to accept the status quo of sleeping sickness as a profoundly neglected disease.

Secondly, WHO's long-standing concern is now supported by improved technical capabilities and committed partners. The moment is thus ripe for a major international initiative against sleeping sickness. Several additional factors support such an initiative:

- All technical partners have reached consensus regarding a common strategy towards elimination of the disease.
- An innovative public-private partnership has been established to support all aspects of the fight against sleeping sickness.
- Heads of State in Africa have expressed strong political commitment to support international efforts against the disease.

### **TECHNICAL PARTNERS**

- National programmes
- NGOs
- Research institutes
- International agencies
- Institutions

### **GLOBAL ALLIANCE**

- Political commitment
- Funding
- Donations
- Advocacy

*Moving forward with a Global Alliance to Eliminate Sleeping Sickness from Africa. WHO and its partners are calling for a global alliance to eliminate the disease and to support WHO's efforts in its elimination programme.*

## **The new initiative: building a global alliance**

### **Starting with public-private partnerships**

In May 2001, when the pharmaceutical company Aventis Pharma, manufacturer of three of the four drugs registered to treat sleeping sickness, joined forces with the WHO sleeping sickness programme, a public-private partnership was established. Other partners also supporting WHO's efforts include Bristol-Myers Squibb, Bayer, the Bill and Melinda

Gates Foundation, Médecins Sans Frontières Drugs for Neglected Diseases Initiative and the governments of Belgium and France.

## *The first partners*

### **Aventis Pharma**

Aventis has committed to a five-year contribution totalling US\$ 25 million over the period July 2001–June 2006. Aventis has donated three specific drugs – pentamidine, melarsoprol, and eflornithine – for five years, which have a global value of US\$ 12.5 million. The Aventis contribution is also being used to strengthen surveillance and control activities:

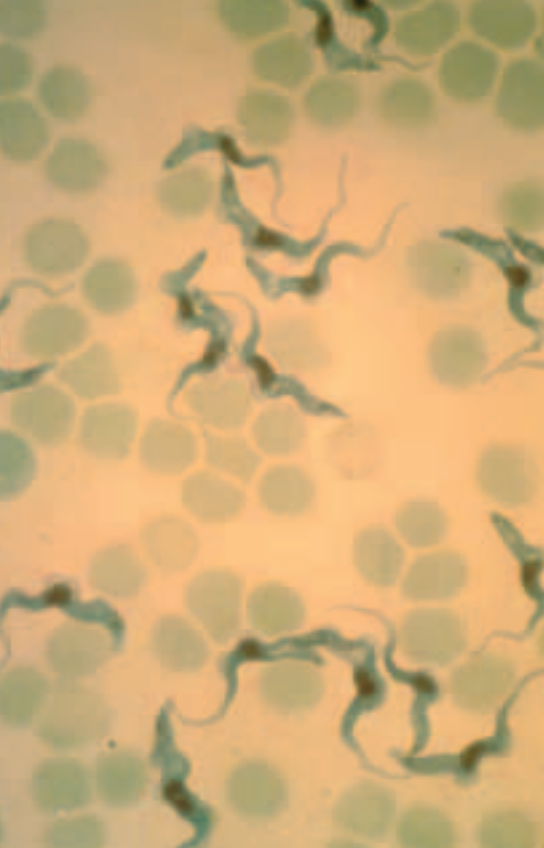
- Screening of populations at risk through mobile teams
- Rehabilitation of treatment centres
- In-service training
- Training workshops at the national, regional and international level
- Mapping and epidemiological surveillance
- Human resources
- Support to the interregional team
- Coordination of control activities
- Information, communication and documentation
- Support to the Sleeping Sickness Treatment and Drug Resistance Network
- Support to the development of the treatment and drug resistance surveillance system

Aventis is contributing to research projects through the WHO/United Nations Development Programme/World Bank Special Programme for Research and Training in Tropical Diseases that is developing new drugs and drug combinations.

### **Bristol-Myers Squibb**

Bristol-Myers Squibb has agreed to donate sufficient raw material valued at US\$ 3.6 million for Aventis Pharma to formulate 60 000 vials of eflornithine to be given to WHO. Additionally, a donation of 140 kg of





*Photo credit: WHO/TDR/Molyneux*

eflornithine powder will be made for use in trials on oral eflornithine formulation. Bristol-Myers Squibb has also pledged US\$ 200 000 annually for two years to support the WHO programme. The donation will be used mainly to develop national treatment capacities.

### **Bayer**

Bayer has agreed to donate the drugs Suramin and Nifurtimox for five years and to support complementary studies for a label extension of Nifurtimox for use in treating HAT. Additionally Bayer wishes to contribute to vector control activities.

### **Bill and Melinda Gates Foundation**

The Bill and Melinda Gates Foundation established the Gates Consortium for Treatment of Sleeping Sickness and Leishmaniasis in the amount of US\$ 15.1 million. The Consortium is led by the University of North Carolina at Chapel Hill (United States), and includes many members of the WHO Sleeping Sickness Treatment and Drug Resistance Network including the Centers for Disease Control and Prevention, Swiss Tropical Institute and Kenya Trypanosomiasis Research Institute. The main work of the Consortium is to screen diamidines to treat disease.

### **Drugs for Neglected Diseases Initiative – DNDi**

DNDi is an alliance established by Médecins sans Frontières dedicated to promoting drug research and development for neglected diseases including HAT, leishmaniasis and malaria. WHO is part of the DNDi working groups.

The governments of Belgium and France have been supporting sleeping sickness control activities for the last 50 years.

### **Belgium**

The Belgian government has committed to an annual cash contribution to support the WHO programme. The funds also



support a control project in central Africa in Angola, Central African Republic, Democratic Republic of Congo and Republic of the Congo. Belgium is also providing human resources for programme implementation.


## **France**

The government of France has pledged a significant cash contribution for the period 2002–2004 to support WHO's programme. To reinforce this contribution, France is providing human resources to support programme activities. The French government supports several countries on a bilateral basis, following the recommendations of WHO, including: Chad, Central African Republic, Democratic Republic of Congo and Republic of the Congo.

## ***The new WHO programme***

### **WHO's leadership role**

Under the WHO programme to eliminate sleeping sickness, WHO is now bringing partners together to ensure coherence of efforts against the disease and maximize their effectiveness. Under WHO's leadership, NGOs, research institutes and national programmes meet regularly to share information and plan activities strategically. Existing networks are now exchanging knowledge and information through WHO, and a series of international training courses and regional meetings organized and led by WHO continue to take place both in Africa and in Europe. Most importantly, WHO is actively supporting the implementation of control activities throughout the endemic countries in cooperation with national authorities.



*In addition, WHO is seeking new partners willing to contribute their time, skills and resources to the programme's efforts to bring this disease once again under control, and to prepare for its ultimate elimination on the African continent.*

*The role of WHO is to coordinate, motivate and support all actors in the fight against sleeping sickness and to promote a team spirit.*

*The programme aims to:*

- *support all people dealing with sleeping sickness, surveillance and control,*
- *create the best conditions for all to develop the most efficient ways to work and to collaborate,*
- *convince more partners to become involved in the fight,*
- *find solutions to respond to research, surveillance and control needs.*



Photo credit: WHO/TDR/Kuzoe

## Strategies

### *Creating conditions for success*

Sleeping sickness endemic areas are among the least geographically accessible in Africa. It is therefore necessary to ensure that all WHO initiatives can access remote areas for efficient and early screening of the population.

Considering the high fluctuations in disease prevalence between countries and foci within countries, countries must remain flexible and able to adapt their strategies, ranging from simple regular surveillance in low endemic areas to systematic screening in highly endemic areas. Bearing in mind that during the first stage of the disease, infected people exhibit few symptoms and that early recognition of infection allows safer, ambulatory treatment and can prevent death, a systematic screening of the population at risk is required, mainly in highly endemic regions.

Given the variations in ecological profiles across the endemic region, vector control policies must also be adaptable in order to maintain effective support for detection and treatment activities.

Sleeping sickness is a complex, severe and deadly disease, requiring sophisticated diagnostic and treatment techniques and appropriate infrastructure. Trained technicians are essential to apply these techniques. The high level of fatal outcomes and resistance to existing treatments requires the availability of specialized hospital services and trained medical personnel.

Recognizing that the operational capacities of national programmes vary greatly according to the financial resources and political stability of each country, it is important to remain flexible and retain a high capacity at the international level in order to respond rapidly to aid national programmes in difficulty.



### *A strategy for the WHO programme to eliminate sleeping sickness*

The strategic approach of WHO, working with its partners, is based on:

- Improving all organizational aspects of sleeping sickness activities,
- Maximizing human resources to carry out the activities,
- Raising sufficient funds to implement the elimination programme.



The design of the strategy is based on the principles of coherence, sustainability, attention to detail and ambitious yet realistic progress towards concrete objectives. Adherence to these principles will allow WHO and the global alliance to propose and achieve objectives that enjoy a high level of consensus between countries and partners.

## WHO's strategic objectives

**Coordination:** bringing together all technical partners and enabling them to embrace a common strategy.

**Networking:** creating as many specific groups as necessary to address cross-cutting issues.

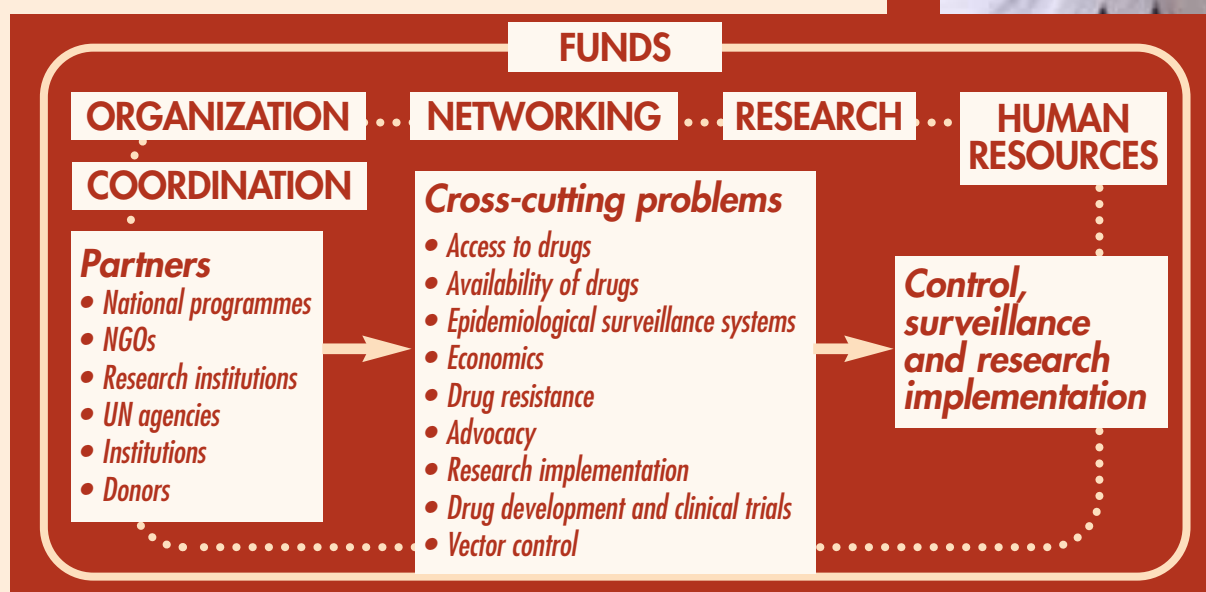
**Advocacy and awareness:** rescuing the disease from oblivion and increasing the visibility of efforts.

**Partnership:** rallying partners to support an elimination programme.

**Support:** strengthening the organization and implementation of control activities in countries.

**Research:** encouraging research institutes to fund and implement research on drugs, diagnosis and applied research.

**Information management and dissemination:** exchanging information and providing training to those involved in sleeping sickness activities.





### **Coordination**

This objective aims to establish cohesive activities throughout Africa involving:

- National programmes sharing a common strategy and team spirit.
- NGOs and other institutions collaborating closely with national programmes and with each other.
- Research institutes sharing efforts and collaborating with national programmes and NGOs at field level.
- Donors supporting all required activities in a timely fashion at the multilateral or bilateral level.
- International agencies coordinating activities at international, regional and national levels.

To strengthen this coordination process and to allow all actors to maintain close contact with each other, training sessions will be held at the sub-regional, regional and international levels aimed at standardizing plans of action, diagnosis and treatment methods. Additionally, working groups will be established around specific objectives. As a result of this coordination, it is expected that new tools and techniques will be applied in a timely manner and shared among actors, and that an exchange of technicians and expertise between countries and institutions will be implemented.

### **Networking**

Networks bring together specialists to respond to cross-cutting issues. Participants may be individuals chosen for their recognized competence in a specialized domain, or representatives of institutions able to offer solutions to specific problems. The various networks (see Annexes A and B) participating in the WHO programme are concerned with:

- Sub-regional control collaboration
- Implementation of research at field level
- Inter-agency collaboration
- Vector control issues
- Availability and accessibility to drugs
- Surveillance of drug resistance

- Coordination and implementation of drug development and clinical trials
- Knowledge of the burden of the disease, including economic aspects
- International scientific networks

As participants in these networks also include technical staff from national sleeping sickness programmes and NGOs, they will feed back the work of these networks into their national programmes.

### ***Advocacy and awareness***

WHO will play a major role as advocate for the programme, disseminating information about activities, presenting a common vision for the programme and outlining clear expectations of the programme's progress. This advocacy role is particularly important to ensure adequate and ongoing commitment from national governments, without which the programme cannot succeed. In raising awareness, WHO will utilize various communication channels including:

- Scientific meetings and publications
- Radio and television reports broadcast in Africa and in the world
- Articles in the popular press

### ***Partnership***

WHO will continue to encourage new partners to join the global alliance and to ensure that all activities needed to eliminate the disease are undertaken. The goal of the Alliance is not only to convince new and existing partners to support the WHO programme, but also to mobilize these partners to convince additional institutions, governments and organizations to support the programme.





### **Support**

The main prerequisite for a successful elimination programme is to ensure that countries in the endemic region commit sufficient energy and resources to screen, diagnose and treat their affected populations and to eliminate tsetse flies. As each country is responsible for its own sleeping sickness control policy, the WHO programme will support national health authorities by:

- Involving heads of programmes and technicians in network activities.
- Providing training at national, regional and international level.
- Providing technical support by experts or technicians from other countries.
- Establishing reference treatment and research structures.
- Involving national programmes in research projects.
- Providing additional screening and diagnostic capacities.
- Supporting epidemiological surveillance.
- Providing technical support to develop financial proposals (including bilateral funding).
- Undertaking funding activities.
- Providing vector control activities.

In turn, individual countries will support the WHO programme by furnishing results and additional information needed to sustain advocacy activities.

### **Research**

WHO will support applied field research for drug development and diagnostic tools and will provide a network of reference treatment centres in the field to enable research and clinical trials to take place.

### **Information management and dissemination**

WHO will provide documentation as well as access to electronic communication tools so that information can be exchanged among those concerned with sleeping sickness activities in different countries. Training at all levels will be provided.



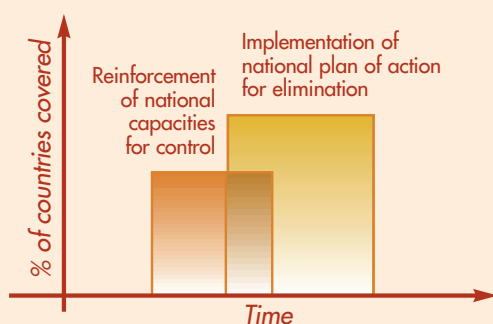
## Implementation

### *Implementation of the WHO elimination programme*

A two-step overlapping process to implement the sleeping sickness elimination programme:

**Step 1.** Control and surveillance capacities for control at national and regional level will be enhanced;

**Step 2.** Plans of action for elimination will be progressively implemented in countries, depending on the capacity of the national programme. The goal is to obtain 100% of countries developing a plan of action with specific milestones.



These two steps will be implemented in parallel, with WHO providing continuous support to enhance national capacities.

For their part, countries will be asked to become fully engaged in the elimination programme. They will develop a plan of action specifically targeting elimination. In particular, they will commit the necessary human resources and develop capacities to screen and treat the population affected by the disease.

### *The WHO team*

The WHO team will work as a single entity. Activities and their implementation schedule will be planned during the Technical Team Meetings to be held at least twice a year.



### **WHO team**

- **WHO/AFRO – Harare**  
*AFRO Regional staff*  
*Kinshasa*  
*AFRO Inter-country team*  
*Abidjan*  
*AFRO Inter-country team*  
*Kampala*
- **WHO/EMRO – Cairo**
- **WHO/HQ – Geneva**  
*HQ Inter-regional team*  
*Yaounde*

Country support activities will be shared by team members according to their geographical area and/or their availability. Each team member can provide assistance to the group, regardless of area of intervention and team origin.

Competency in areas such as advocacy, drugs, field operations, vector control and international cooperation will be defined during regular meetings. Focal points will be identified and assigned according to individual technical competencies, with each team member able to join any working group and take part in meetings and other events.

In view of the elimination goal and to sustain efforts, the team will start to work with countries to prepare national plans of action with quantifiable objectives and milestones, and promote the involvement of national authorities to establish well-structured programmes towards elimination.

## **Conclusion**

After more than forty years of neglect, the international community has now awakened to the need to eliminate sleeping sickness from the African continent. WHO is capitalizing on this growing awareness and the willingness of both public agencies and private companies to act decisively by launching the WHO programme to eliminate sleeping sickness.

In large part due to the participation of the partners in the global alliance, WHO is now able to begin the rapid implementation of the Programme's objectives in more than 30 African countries currently afflicted with the disease.



## **ANNEX A**

### **Pan African Trypanosomiasis and Tsetse Eradication Campaign (PATTEC)**

PATTEC was established in Lomé, Togo, by the Heads of State and governments during the OAU summit in June 2000. Officially launched on 5 October 2001, the main role of PATTEC is to promote control of sleeping sickness at the highest political level. Established under the aegis of OAU, and driven by the Secretary-General of OAU, the campaign represents a strong pan-African commitment to the fight against the disease. WHO is promoting PATTEC through coordination and control activities. PATTEC, through the OAU, is encouraging countries to support and enhance control capacities. PATTEC is mainly involved in developing a large vector control campaign aiming at creating tsetse-free areas, and towards eventual elimination. This goal supports the mandate of WHO and its disease management activities. Reducing the human reservoir of trypanosomes in parallel with the reduction and elimination of vectors contributes greatly to the overall goal of PATTEC.

The Programme Against African Trypanosomiasis (PAAT, see Annex B) is a major partner in PATTEC. As WHO is co-secretary of PAAT, inter-agency collaboration to eliminate sleeping sickness is reinforced. WHO is a member of PATTEC's Policy and Mobilization Committee, which is responsible for supervising the PATTEC initiative on behalf of the Secretary-General of OAU.

#### **Role of WHO in PATTEC**

*"In the case of human African trypanosomiasis control will continue to depend on disease surveillance and treatment as the principal priority for the foreseeable future, with tsetse suppression as a complementary tool. Tsetse intervention strategies need to be developed as component of longer term human trypanosomiasis prevention measures. In animal trypanosomiasis tsetse suppression has a greater role to play for immediate problem alleviation and in priority areas will be an important forerunner to eradication."*

**Recommendation of the Executive Committee of International Scientific Council for Trypanosomiasis Research and Control, 18 September 2000.**

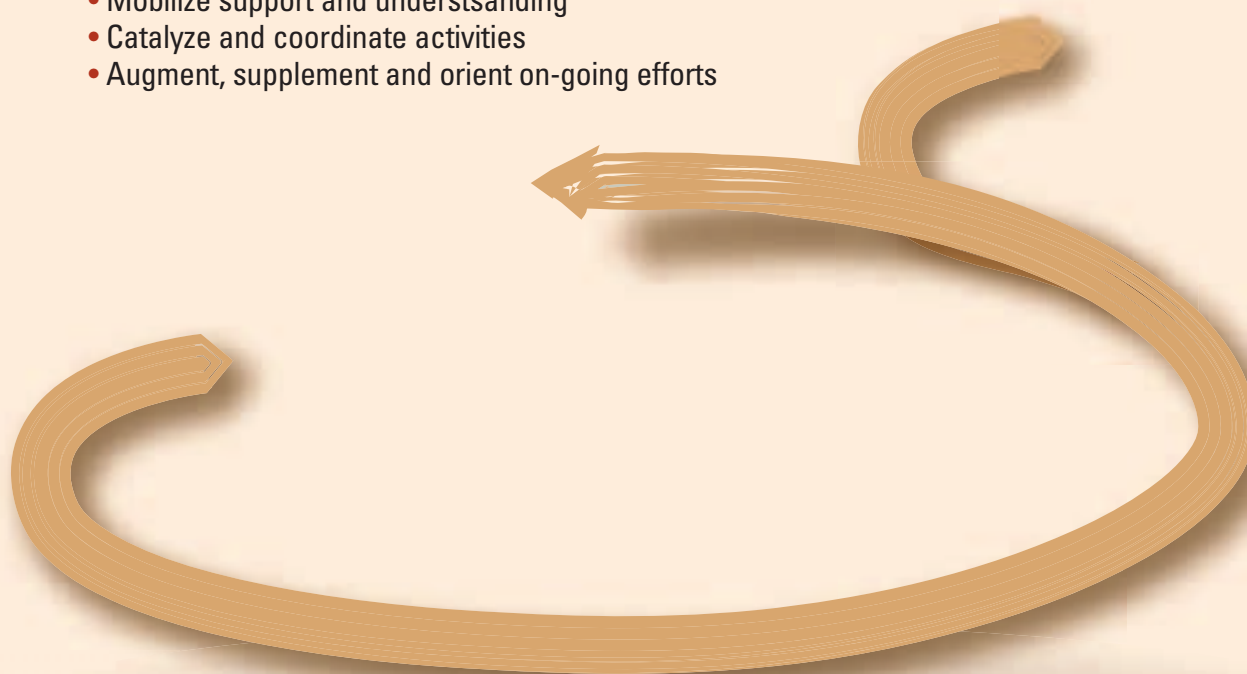


## **PATTEC**

- Increase awareness
- Heighten dynamism
- Create commitment and consensus
- Focus activity with clear goals and deadlines
- Emphasize area-wide approach and eradication
- Enhance result-oriented plans and activities
- Mobilize support and understanding
- Catalyze and coordinate activities
- Augment, supplement and orient on-going efforts

## **PAAT**

- Review of programmes
- Inter-organization liaison
- Information and publications



## **IAEA**

- SIT
- Mass-rearing
- Sterilization
- Field research
- Research

## **FAO**

- Project concept
- Project document
- Project evaluation
- Use of tsetse-free land
- Animal disease management

## **OAU-IBAR\***

- Country data
- Field programmes
- Country mandated offices

## **WHO**

- Disease diagnostics
- Disease surveys
- Disease treatment

\* IBAR: Inter-African Bureau of Animal Resources

## **ANNEX B**

### **TECHNICAL NETWORKS**

#### **COORDINATION NETWORK FOR SURVEILLANCE AND CONTROL**

This international network for the coordination of surveillance and control activities includes diverse public and private participants dedicated to eradicating HAT. Regional coordination structures are being established by the inter-country teams in west, central and east Africa.

In addition, an epidemiological surveillance system based on a geographical information system (GIS) and designed in 1997, is currently being implemented in all endemic countries. The HealthMapper system, the GIS developed by WHO, will be an essential management tool for monitoring at national and regional levels.

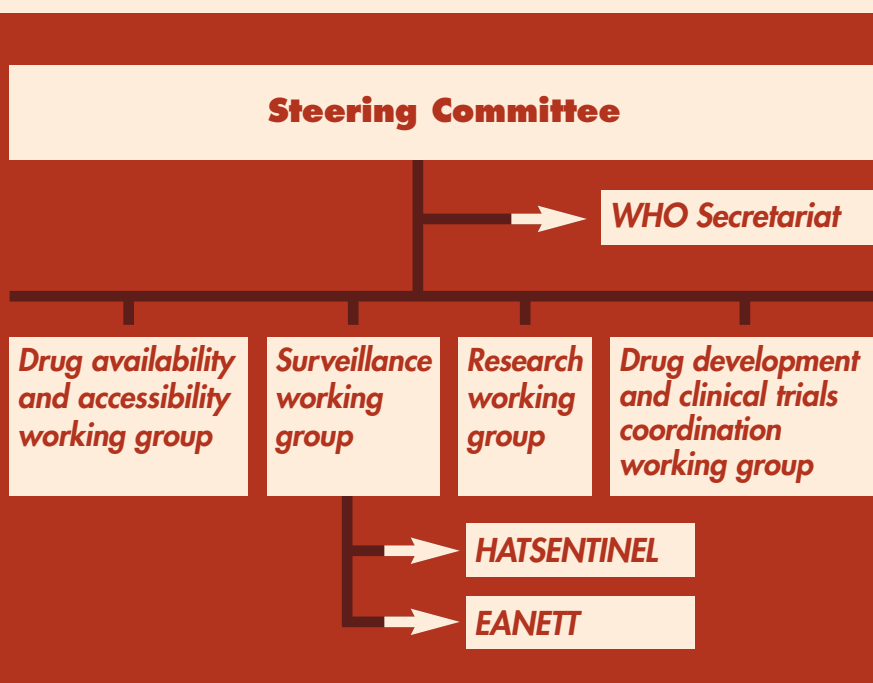
All of the villages making up foci will be geo-referenced and included in the system. The aim is to map all the foci and to receive regular and standardized epidemiological data. To achieve this objective, WHO is providing support to countries for equipment, training, and collection of data and implementation of surveillance systems.

#### **SLEEPING SICKNESS TREATMENT AND DRUG RESISTANCE NETWORK (DRN)**

The mission of the network is to monitor drug resistance, and find and recommend solutions for treatment of sleeping sickness. The Secretariat is served by WHO and the Steering Committee is composed of scientists from:

- Bureau Central de la Trypanosomiase (BCT) – Democratic Republic of Congo
- Centers for Disease Control and Prevention – Atlanta, United States

- Epicentre, France
- Gates Consortium represented by University of North Carolina, Chapel Hill, United States
- Institut de Lutte Contre la Trypanosomiase (ICCT) – Angola
- Institut pour la Recherche et le Développement (IRD)
- Institute of Tropical Medicine of Antwerp – Belgium
- Institute of Tropical Medicine of Lisbon – Portugal
- Kenyan Trypanosomiasis Research Institute
- Médecins Sans Frontières (MSF)
- MSF Access to Essential Drugs Campaign
- Organisation pour la Coordination des Endémies en Afrique Centrale (OCEAC/IRD)
- Swiss Tropical Institute of Basel – Switzerland



Four working groups have been established as part of the DRN to focus on drug availability and accessibility, research, surveillance and coordination for drug development and clinical trials. Their objectives include:

- Improving drug availability and accessibility for all sleeping sickness patients.
- Enhancing treatment capacities in every affected country to provide the safest possible drug administration.
- Reinforcing the treatment and drug resistance surveillance systems (HATSENTINEL and EANETT) in order to collect the most useful information on treatment. Countries must enable all their treatment centres to participate in the surveillance network.
- Promoting and improving research into new drugs and more effective drug combinations.

- Ensuring that all endemic countries participate in clinical trials and are involved in the treatment and drug resistance information system, mainly through the establishment of at least one reference treatment centre in each country and by training national experts.
- Providing all research laboratories with biological specimens and highly efficient treatment centres for collaboration.
- Developing an information bank for clinical data, biological specimens, and parasite strains available to all researchers in close collaboration with national programmes and other research institutes.

## **INTER-AGENCY NETWORKS**

The goal of the Inter-Agency Networks is to encourage collaboration and support in six critical areas:

- Information systems
- Increasing diagnosis capacities
- Vector control
- Training
- Awareness
- Partnership

## **Programme Against African Trypanosomiasis (PAAT)**

PAAT was established in 1995 with the mission of forming an international alliance that treats the tsetse and trypanosomiasis problem as an integral part of development and poverty alleviation, assuring positive and lasting results in endemic areas. PAAT is a joint WHO/FAO/IAEA/OAU programme, established to address two main issues. The first area is the considerable impact that trypanosomiasis as a human and animal disease has on the general development of rural communities and food security at the local and

national level. The second area of focus is the broad overlap in control techniques and approaches to each human and animal trypanosomiasis including: vector control, parasite biology, epidemiological surveillance, programme management, monitoring of activities, decision-making process and development of information systems. Advisory groups have been formed to deal with specific issues covering human and animal diseases such as research, land use, environment and vector control. A PAAT information system has been built up which supports the biggest Internet forum discussion on trypanosomiasis.

### **International Scientific Council for Trypanosomiasis Research and Control (ISCTRC)**

Established in 1949, the Council promotes trypanosomiasis research and control. It addresses aspects of the disease in humans and animals including vector control. Every two years, the ISCTRC holds a scientific conference, and the Executive Committee, of which WHO is a member, meets every year.

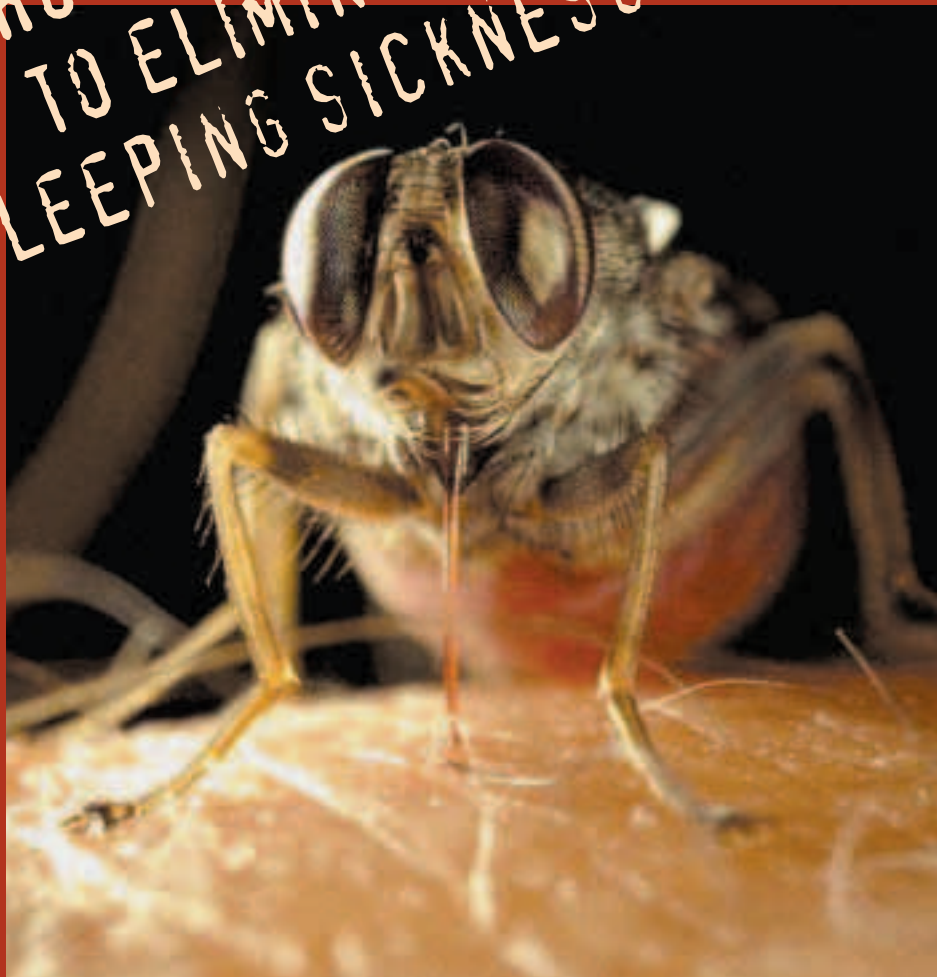
### **African Forum for the Development and Application of the Sterile Insect Technique in Area-wide Programmes for Tsetse Fly Eradication (Pan African SIT Forum)**

WHO is an associate of this forum, which aims to implement SIT projects under the aegis of the International Atomic Energy Agency (IAEA). Subsequent to the successful eradication of tsetse flies in Zanzibar, a project is currently being implemented in Ethiopia. A strong link has been established between PATTEC and the SIT Forum.





**WHO PROGRAMME  
TO ELIMINATE  
SLEEPING SICKNESS**



**For more information, please contact:**

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